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APPLICATION NO.	FILING DATE	FIRST NAMED INVENTOR	ATTORNEY DOCKET NO.	CONFIRMATION NO.
10/529,240	03/25/2005	David Politzer	4590-382	2412
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LOWE HAUPTMAN & BERNER, LLP 1700 DIAGONAL ROAD, SUITE 300 ALEXANDRIA, VA 22314				
EXAMINER				
CHOWDHURY, AFROZA Y				
ART UNIT		PAPER NUMBER		
2629				
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Please find below and/or attached an Office communication concerning this application or proceeding.

The time period for reply, if any, is set in the attached communication.

Office Action Summary

Application No.

10/529,240

Applicant(s)

POLITZER ET AL.

Examiner

AFROZA Y. CHOWDHURY

Art Unit

2629

Period for Reply -- The MAILING DATE of this communication appears on the cover sheet with the correspondence address --

A SHORTENED STATUTORY PERIOD FOR REPLY IS SET TO EXPIRE 3 MONTH(S) OR THIRTY (30) DAYS, WHICHEVER IS LONGER, FROM THE MAILING DATE OF THIS COMMUNICATION.

- Extensions of time may be available under the provisions of 37 CFR 1.136(a). In no event, however, may a reply be timely filed after SIX (6) MONTHS from the mailing date of this communication.
- If NO period for reply is specified above, the maximum statutory period will apply and will expire SIX (6) MONTHS from the mailing date of this communication.
- Failure to reply within the set or extended period for reply will, by statute, cause the application to become ABANDONED (35 U.S.C. § 133). Any reply received by the Office later than three months after the mailing date of this communication, even if timely filed, may reduce any earned patent term adjustment. See 37 CFR 1.704(b).

Status

- 1) ☒ Responsive to communication(s) filed on 25 April 2008.
- 2a) ☐ This action is **FINAL**. 2b) ☒ This action is non-final.
- 3) ☐ Since this application is in condition for allowance except for formal matters, prosecution as to the merits is closed in accordance with the practice under *Ex parte Quayle*, 1935 C.D. 11, 453 O.G. 213.

Disposition of Claims

- 4) ☒ Claim(s) 1-5,7-9 and 11-19 is/are pending in the application.
- 4a) Of the above claim(s) _____ is/are withdrawn from consideration.
- 5) ☐ Claim(s) _____ is/are allowed.
- 6) ☒ Claim(s) 1-5,7-9 and 11-19 is/are rejected.
- 7) ☐ Claim(s) _____ is/are objected to.
- 8) ☐ Claim(s) _____ are subject to restriction and/or election requirement.

Application Papers

- 9) ☐ The specification is objected to by the Examiner.
- 10) ☐ The drawing(s) filed on _____ is/are: a) ☐ accepted or b) ☐ objected to by the Examiner.
Applicant may not request that any objection to the drawing(s) be held in abeyance. See 37 CFR 1.85(a).
Replacement drawing sheet(s) including the correction is required if the drawing(s) is objected to. See 37 CFR 1.121(d).
- 11) ☐ The oath or declaration is objected to by the Examiner. Note the attached Office Action or form PTO-152.

Priority under 35 U.S.C. § 119

- 12) ☒ Acknowledgment is made of a claim for foreign priority under 35 U.S.C. § 119(a)-(d) or (f).
- a) ☒ All b) ☐ Some * c) ☐ None of:
1. ☐ Certified copies of the priority documents have been received.
 2. ☐ Certified copies of the priority documents have been received in Application No. _____.
 3. ☒ Copies of the certified copies of the priority documents have been received in this National Stage application from the International Bureau (PCT Rule 17.2(a)).

* See the attached detailed Office action for a list of the certified copies not received.

Attachment(s)

- 1) ☒ Notice of References Cited (PTO-892)
- 2) ☐ Notice of Draftperson's Patent Drawing Review (PTO-948)
- 3) ☒ Information Disclosure Statement(s) (PTO-8508)
Paper No(s)/Mail Date 11/1/2005
- 4) ☐ Interview Summary (PTO-413)
Paper No(s)/Mail Date _____
- 5) ☐ Notice of Informal Patent Application
- 6) ☐ Other: _____

DETAILED ACTION

Response to Amendment

1. Applicant's amendment received on **April 25, 2008** has been entered. Claims 1-5, 7-9, and 11-19 are currently pending. Applicant's amended and newly added claims are addressed herein below.

Claim Objections

2. Claims 16 and 19 are objected to because of the following informalities:

Regarding claim 16, it can not depend on the instant claim 16.

Regarding claim 18, it does not clear that claim 18 depending on which claim.

Appropriate correction is required.

Claim Rejections - 35 USC § 103

3. The following is a quotation of 35 U.S.C. 103(a) which forms the basis for all obviousness rejections set forth in this Office action:

(a) A patent may not be obtained though the invention is not identically disclosed or described as set forth in section 102 of this title, if the differences between the subject matter sought to be patented and the prior art are such that the subject matter as a whole would have been obvious at the time the invention was made to a person having ordinary skill in the art to which said subject matter pertains. Patentability shall not be negated by the manner in which the invention was made.

4. Claims 1-5, 7-9, and 11-13 are rejected under 35 U.S.C. 103(a) as being unpatentable over **Tada et al.** (US Patent 2002/0109674) in view of **Lilenfeld** (US Patent 6,680,728).

As to claim 1, Tada et al. discloses a device, comprising a trackball (fig. 1(1)), the trackball having a movable part (fig. 1(2), ball),

and a body (fig. 1(3), case) inside which the movable part (fig. 1(2), ball) can move,

the trackball (fig. 1(1)) delivering an item of information on the orientation of the movable part (fig. 1(2), ball) relative to the body (fig. 1(3)),

the device also comprising a cover (figs. 1, 2(6), case cover) inside which the trackball (fig. 1(1)) is attached,

the cover (figs. 1, 2(6), case cover) being separate from the body (fig. 1(3)) and comprising an opening (fig. 2, page 3, [0047]) allowing the movable part (fig. 1(2), ball) of the trackball (fig. 1(1)) to appear in order to operate the movable part (fig. 1(2), ball) from outside the cover (figs. 1, 2(6), case cover),

the trackball (fig. 1(1)) comprising maintenance means (page 3, [0047] – [0049]), comprising means (figs. 1, 2(6), case cover) for gaining access (page 3, [0047]) to the means of maintaining the trackball (fig. 1(1)) from outside the cover (figs. 1, 2(6), case cover),

in that the means for gaining access (page 3, [0047]) to the maintenance means comprises a window (fig. 1(8)) removably attached to the cover (figs. 1, 2(6), case cover) so as to gain access (page 3, [0047]) to the maintenance means (page 3, [0047] – [0049]) by removing the window (fig. 1(8)) and without removing the trackball (fig. 1(1)) from the cover (figs. 1, 2(6), case cover).

Tada et al. does not specifically teach a cover having a portion configured for an operator to rest a palm of a hand thereon in a manner wherein the palm is ergonomically supported and wherein fingers of the hand are free to engage the movable part of the trackball.

Lilenfeld teaches a cover having a portion configured for an operator to rest a palm of a hand thereon in a manner wherein the palm is ergonomically supported and wherein fingers of the hand are free to engage the movable part of the trackball (figs. 1-4, abstract, col. 7, lines 64-65).

Therefore, it would have been obvious to one skill in the art at the time of the invention was made to combine Lilenfeld's ergonomic cursor control device with the trackball unit of Tada et al. to make a trackball that provides ergonomic support to user's hand.

As to claim 2, Tada et al. teaches a device wherein the window (fig. 1(8)) has the shape of a disk with a hole (fig. 2(7)) therein and in that the hole forms the opening of the cover (page 3, [0047]).

As to claim 3, Tada et al. teaches a device wherein the hole (fig. 2) has a shape matching the shape of the movable part (fig. 2(2), ball) so as to limit the penetration of particles inside the cover (figs. 1, 2(6), case cover).

As to claims 4, 8, and 9, Tada et al. discloses a device comprising means of emptying out particles (page 3, [0052]) penetrating inside the cover (figs. 1, 2(6), case cover).

Tada et al. does not teach that the particles are trapped between the window and the trackball.

However, it is obvious that the particles are trapped between the window and the trackball and Tada et al. teaches emptying out those particles (page 3, [0052]).

As to claim 5, Tada et al. teaches a device wherein the emptying means (page 3, [0052]).

Tada et al. does not explicitly teach that the cavity is acting as a collector.

However, it is obvious that the cavity is acting as a collector that is collecting all the particles.

As to claim 7, Tada et al. teaches a device wherein the ring belongs to the maintenance means (page 3, [0048] – [0049], [0055]).

As to claims 11-13, Tada et al. teaches a device wherein the trackball (fig. 1(1)) comprises a ring (figs. 1, 2(7)) attached to the body (fig. 1(3), case).

Tada et al. does not specifically teach that whether the ring is configured to prevent the movable part from losing contact with the body.

However, it is obvious that the ring is preventing the movable part from losing contact with the body.

As to claim 14, Tada et al. teaches a device wherein a ring (fig. 1(27)), which is separate from the window (fig. 1(8)), is attached to the body (fig. 1(3), case).

Tada et al. does not specifically teach that whether the ring is configured to prevent the movable part from losing contact with the body.

However, it is obvious to one skill in the art to recognize that the ring is preventing the movable part from losing contact with the body.

As to claim 15, Tada et al. discloses a device, comprising:
a trackball (fig. 1(1), the trackball having a movable element (fig. 1(2), ball),
a cover (figs. 1, 2(6), case cover) inside which the trackball (fig. 1(1)) is disposed,
the cover comprising:

an opening (fig. 2) through which a portion of the movable element of the trackball (fig. 1(1)) is exposed for manual manipulation (page 3, [0047] – [0048]), and

Tada et al. does not explicitly teach a cover having a portion configured for an operator to rest a palm of a hand thereon in a manner wherein the palm is ergonomically supported and wherein fingers of the hand are free to engage the exposed portion of the movable element.

Lilenfeld teaches a cover having a portion configured for an operator to rest a palm of a hand thereon in a manner wherein the palm is ergonomically supported and

wherein fingers of the hand are free to engage the exposed portion of the movable element (figs. 1-4, abstract, col. 7, lines 64-65).

Therefore, it would have been obvious to one skill in the art at the time of the invention was made to combine Lilenfeld's ergonomic cursor control device with the trackball unit of Tada et al. to make a trackball that provides ergonomic support to user's hand.

As to claim 16, Tada et al. teaches a device wherein the movable element is a ball (fig. 1(2)).

As to claim 17, Tada et al. teaches a device comprising a window (fig. 1(8)) which includes the opening (fig 2(7)) through which the portion of the movable element is exposed (page 3, [0047]), and which is removably attached to the cover so as to gain access to trackball and facilitate maintenance of the trackball (page 3, [0047] – [0048]).

As to claim 18, Tada et al. teaches a device wherein the window (fig. 1(8)) comprises a disk in which the opening (fig 2(7)) through which a portion of the movable element of the trackball is exposed, is formed (page 3, [0047]).

As to claim 19, Tada et al. teaches a trackball that can be installed in operating panels of various kinds of equipment ([0001]).

Tada et al. does not specifically teach a device wherein the trackball forms part of an aircraft instrument panel.

However, it is obvious to one skill in the art to recognize that trackball of Tada et al. as the part of an aircraft instrument panel.

Response to Arguments

5. Applicant's arguments with respect to claims 1-5, 7-9, and 11-19 have been considered but are moot in view of the new ground(s) of rejection.

Conclusion

Any inquiry concerning this communication or earlier communications from the examiner should be directed to AFROZA Y. CHOWDHURY whose telephone number is (571)270-1543. The examiner can normally be reached on 7:30-5:00 EST, 5/4/9.

If attempts to reach the examiner by telephone are unsuccessful, the examiner's supervisor, Bipin Shalwala can be reached on 571-272-7681. The fax phone number for the organization where this application or proceeding is assigned is 571-273-8300.

Art Unit: 2629

Information regarding the status of an application may be obtained from the Patent Application Information Retrieval (PAIR) system. Status information for published applications may be obtained from either Private PAIR or Public PAIR. Status information for unpublished applications is available through Private PAIR only. For more information about the PAIR system, see <http://pair-direct.uspto.gov>. Should you have questions on access to the Private PAIR system, contact the Electronic Business Center (EBC) at 866-217-9197 (toll-free). If you would like assistance from a USPTO Customer Service Representative or access to the automated information system, call 800-786-9199 (IN USA OR CANADA) or 571-272-1000.

AC

6/3/2008

***/Bipin Shalwala/
Supervisory Patent Examiner, Art Unit 2629***